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EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/934,163

Applicant(s)

COLLIER, JOSH D.

Examiner

Etienne P LeRoux

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Claims Status***

Claims 1-14 are pending. Claims 1-14 are rejected.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,604,912 issued to Iadonato et al (hereafter Iadonato) and further in view of US Pat No 6,072,781 issued to Feeney et al (hereafter Feeney).

**Claim 1:**

Iadonato discloses:

- providing a store [Iadonato register file 202, Fig 2] the store including a plurality of storage slots figured to store messages
- providing a FIFO queues configured to store tags corresponding to the messages, wherein each tag identifies the storage slot in which the corresponding message is stored [Iadonato tag FIFO 204, Fig 2]
- enqueueing a given message by storing the given message in a given slot identified by a given tag, when any slot is empty [Iadonato col 6, line 18-24] and loading the given tag onto the selected FIFO queue [Iadonato col 6, lines 18-24]

Iadonato discloses the elements of claim 1 as noted above. Furthermore, Iadonato discloses a program instruction store but Iadonato fails to disclose a message store to store messages received from a network. Feeney discloses a message store [Fig 1, system memory 114] to store messages received from a network [Fig 1, 102]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iadonato to include a message store to store messages received from a network as taught by Feeney for the purpose of providing a data communication system which prevents large message blocks impeding the smaller, higher priority control messages that should be sent and received expeditiously [Feeney, col 1, lines 30-33].

Iadonato discloses the elements of claim 1 as noted above but fails to disclose a plurality of FIFO queues. Feeney discloses a plurality of FIFO queues [RCV FIFOs 105, Fig 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iadonato to include a plurality of FIFO queues as taught by Feeney. The ordinarily skilled artisan would have been motivated to modify Iadonato per the above for the purpose of supporting the different types of message traffic, both send and receive, that comprise a multimedia server system [col 2, lines 13-16].

Iadonato discloses the elements of claim 1 as noted above. Iadonato fails to disclose selecting one of the FIFO queues based on at least one source identifier and type for the given message. Feeney discloses selecting one of the FIFO queues based on at least one source identifier and type for the given message [message 320 Fig 8, Fig 10, col 13, line 51 through col 14, line 12]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iadonato to include selecting one of the FIFO queues based on at

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least one source identifier and type for the given message as taught by Feeney for the purpose of providing a data communication system which prevents large message blocks impeding the smaller, higher priority control messages that should be sent and received expeditiously [Feeney, col 1, lines 30-33].

Claims 2 and 13:

Iadonato discloses selecting a message for dequeuing after the tag corresponding to the message is at the head of one of the FIFO queues, removing the tag corresponding to the selected message from the corresponding FIFO queue, and freeing the storage slot identified by the tag corresponding to the selected message [col 3, lines 38-49].

Claims 3, 11 and 14:

Feeney discloses wherein selecting a message for dequeuing includes arbitrating for priority by applying a round robin priority algorithm [col 30, lines 29-39]

Claims 4 and 9:

Iadonato discloses wherein selecting a message for dequeuing further includes determining that resources are available for processing the message [control logic 207, Fig 1]

Claims 5 and 10:

Iadonato discloses wherein selecting a message for dequeuing further includes arbitrating for priority [col 6, lines 53-60].

Claim 6:

Feeney discloses wherein selecting one of the FIFO queues includes ensuring that no two FIFO queues contain tags corresponding to messages with the same source identifier and type [col 15, line 58 through col 16, line 10]

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Claim 7:

Iadonato discloses wherein the number of FIFO queues equals the number of storage slots [col 6, lines 9-24].

Claim 8:

Iadonato discloses:

- providing a store [Iadonato register file 202, Fig 2] the store including a plurality of storage slots figured to store messages
- providing a FIFO queue configured to store tags corresponding to the messages, wherein each tag identifies the storage slot in which the corresponding message is stored [Iadonato tag FIFO 204, Fig 2]

Iadonato discloses the elements of claim 1 as noted above. Furthermore, Iadonato discloses a program instruction store but Iadonato fails to disclose a message store to store messages received from a network. Feeney discloses a message store [Fig 1, system memory 114] to store messages received from a network [Fig 1, 102]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iadonato to include a message store to store messages received from a network as taught by Feeney for the purpose of providing a data communication system which prevents large message blocks impeding the smaller, higher priority control messages that should be sent and received expeditiously [Feeney, col 1, lines 30-33].

Iadonato discloses the elements of claim 1 as noted above but fails to disclose a plurality of FIFO queues. Feeney discloses a plurality of FIFO queues [RCV FIFOs 105, Fig 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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modify Iadonato to include a plurality of FIFO queues as taught by Feeney. The ordinarily skilled artisan would have been motivated to modify Iadonato per the above for the purpose of supporting the different types of message traffic, both send and receive, that comprise a multimedia server system [Feeney, col 2, lines 13-16].

Iadonato discloses selecting a message for dequeuing after the tag corresponding to the message is at the head of one of the FIFO queues, removing the tag corresponding to the selected message from the corresponding FIFO queue, and freeing the storage slot identified by the tag corresponding to the selected message [col 3, lines 38-49].

Claim 12:

Iadonato discloses:

- providing a store [register file 202, Fig 2] the store including a plurality of storage slots figured to store messages
- providing a FIFO queue configured to store tags corresponding to the messages, wherein each tag identifies the storage slot in which the corresponding message is stored [Iadonato tag FIFO 204, Fig 2]

Iadonato discloses the elements of claim 1 as noted above. Furthermore, Iadonato discloses a program instruction store but Iadonato fails to disclose a message store to store messages received from a network. Feeney discloses a message store [Fig 1, system memory 114] to store messages received from a network [Fig 1, 102]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iadonato to include a message store to store messages received from a network as taught by Feeney for the purpose of providing a data communication system

which prevents large message blocks impeding the smaller, higher priority control messages that should be sent and received expeditiously [Feeney, col 1, lines 30-33].

Iadonato discloses the elements of claim 1 as noted above but fails to disclose a plurality of FIFO queues. Feeney discloses a plurality of FIFO queues [RCV FIFOs 105, Fig 1]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iadonato to include a plurality of FIFO queues as taught by Feeney. The ordinarily skilled artisan would have been motivated to modify Iadonato per the above for the purpose of supporting the different types of message traffic, both send and receive, that comprise a multimedia server system [col 2, lines 13-16].

Iadonato discloses logic for enqueueing a given message, wherein the enqueueing includes storing the given message in a storage slot identified by a given tag when any slot is empty [col 6, lines 18-24]

Feeney discloses selecting one of the plurality of FIFO queues based at least on source identifier and type for the message [col 15, line 58 – col 16 line 10].

Iadonato discloses loading the given tag onto the selected FIFO queue [tag FIFO 204, Fig 2].

### ***Response to Arguments***

Applicant's arguments filed 6/15/2004, have been fully considered and found partially persuasive. Supra new grounds of rejection are provided.

Applicant states on page 6 “As described above, Feeney receives incoming messages in a received FIFO buffer 105, from which they may be transferred into system memory 114. Feeney does not queue tags in separate FIFO queues to determine the order in which to process the



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incoming messages.” Examiner is persuaded. Due to applicant’s amending of claims 1, 8 and 12 such that above feature(s) become clear and plain, examiner provides supra new rejection which introduces the prior art disclosure of Iadonato.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (571) 272-4023.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Etienne LeRoux

10/14/2004



**UYEN LE**  
**PRIMARY EXAMINER**